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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,020	06/06/2000	EIJI NISHIKAWA	106422	9038

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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,020

Applicant(s)

NISHIKAWA, EIJI

Examiner

Abbas I Abdulsalam

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/13/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 10/13/2004 have been fully considered but they are not persuasive.

Applicant argues the claims as amended do not teach the plural display devices having a function of controlling whether or not they display information in accordance with selection information which is generated based on the setting information.

Ishizawa, however teaches that whether the display device is attached to the personal computer main unit 3 or not, the data of the VRAM 78 is read by the CPU 75 or the display controller 79 and it is displayed on the display panel 62. Ishizawa indicates that when the display device 6 is attached, the VRAM 78 is also updated in parallel by the data from the personal computer main unit 3 by the control of the CPU 75. When it is detached, it is detected by the CPU 75 by the high level of the detection signal SD and the power saving is managed. Ishizawa teaches that the display controller 79 is connected to a character generator 81 for generating character codes and also connected to an LCD driver 82, which drives the display panel 62 to control the display of the content of the display device VRAM 78 on the display panel 62. Further Ishizawa adds that by setting a mode of the CPU 75, the VRAM 78 may store a plurality of screens to display them. See col. 4, lines 49-63, col. 5, lines 59-67 and col. 6. line 1. Therefore, it would obvious from Ishizawa's teaching that the CPU 75 along with a display controller (79) controls the display information. It would also be obvious that by setting a mode of the CPU 75, one may put the necessary number of screens for display through VRAM, and hence the desired "selection information" is satisfied.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 6-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The independent claims partly state “plural display devices that each continue to display an image after cutoff electric power”. It is unclear how cutting the electric power applies to the plural display devices as opposed to an overall information display system part of which are the plural display devices themselves. Proper correction with meaningful claim language is needed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizawa et al. (USPN 5774105) in view of Ishizawa et al. (USPN 6411282) and Kim (USPN 6304431).

Regarding claims 1 and 6, Ishizawa teaches the use of plural display devices with one display device for displaying system data having a memory characteristics and another device needing no memory characteristics. Ishizawa teaches a ferroelectric liquid crystal having memory characteristics, data and power system such that the data before cutting-off the power is redisplayed. See col. 3, lines 48-53 and col. 7, lines 34-46. Ishizawa discloses that that when switching power supply is tuned off, the power supply controller (7) continues to supply liquid crystal drive voltages to liquid crystal panels (2a, 2b) for a prescribed period. See col. 7, lines 5-21 and Fig. 6. Ishizawa, referring to Fig. 1 also teaches that the power controller (7) is designed to supply optimum liquid crystal drive voltages to drive IC for the liquid crystal panels (2a, 2b). See col. 6, lines 7-10 and Fig. 1. However, Ishizawa does not teach a connector for delivering electric power and for sending information, the information sent being displayable on the plural display devices such that the plural display devices are detachably attached to the connector. Ishizawa on the other teaches a display (6), which can be detached and power itself after detachment and maintain the display. See col. 6, lines 37-45 and Fig. 1. Ishizawa also teaches a power supply of the personal computer main unit (3) is connected to the power supply pin (31B) of the main connector (31) so that the sheet battery is (67) is recharged when the display device (6) is attached. See col. 5, lines 10-26 and Fig. 5.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Ishizawa's detachable device (6) inside Ishizawa's plural display devices system. One would have been motivated in view of the suggestion in Ishizawa the detachable display (6) as configured in Fig. 1 equivalently performs "displaying the sent

Art Unit: 2674

information after being detached from the connector". The use of detachable display helps function a display system with enhanced portability as taught by Ishizawa.

Kim on the other hand teaches a detachment of a display unit (140') from a main body 110' whereby electrical communication with the display unit is wireless as shown in Fig. 5 (col. 3, lines 44-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ishizawa's display systems to adapt Kim's wireless communication as illustrated in Fig. 5. One would have been motivated in view of the suggestion in Kim that that a wireless communication between the display unit (140') and the main body (110') is functionally equivalent and meets the required feature of "exchanging of information by a wireless system". The use of wireless communication helps function a portable computer with detachable display unit as taught by Kim.

Regarding claim 6, in addition to what has been discussed above, Ishizawa discloses a system data display region (2), which is designed to effect writing when storing data by utilizing the memory characteristics of the ferroelectric liquid crystal. See col. 5, lines 22-27.

Regarding claims 2 and 7, Ishizawa teaches when the detachable display is detached, it displays its stored data by powering itself. See col. 6, lines 38-40.

Regarding claims 3-4, 8-11, and 13-14, Ishizawa teaches a liquid crystal controller (9) which transfers the image data outputted from a host computer (3) to the driver IC of the liquid crystal panel. See col. 6, lines 60-67. In addition, Ishizawa discloses a system data display region (2), which is designed to effect writing when storing data by utilizing the memory characteristics of the ferroelectric liquid crystal. See col. 5, lines 22-27.

Art Unit: 2674

Regarding claim 12, Ishizawa teaches a host system supplying image data to the display means and in an event of power interruption. See col.2, lines 46-60. It would have been obvious that the transmission tool by which data is supplied can be wireless. Furthermore, as shown above, Kim teaches a detachment of a display unit (140') from a main body 110' whereby electrical communication with the display unit is wireless (Fig. 5).

Regarding claim 15, Ishizawa teaches as discussed above that by setting a mode of the CPU 75, the VRAM 78 may store a plurality of screens to display them (col. 4, lines 49-63).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2674

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I Abdulsalam whose telephone number is (571) 272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

Art Unit 2674

April 8, 2005


XIAO WU
PRIMARY EXAMINER